

SEQUENCE LISTING

<110> Barbas, Carlos F., III  
Kadan, Michael  
Beerli, Roger

<120> LIGAND ACTIVATED TRANSCRIPTIONAL REGULATOR PROTEINS

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<140> Unknown  
<141> 2000-06-02

<150> 09/433,042  
<151> 1999-10-25

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<170> PatentIn Ver. 2.0

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<213> Artificial Sequence

<220>

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 <213> Artificial Sequence

<220>

<220>  
 <223> Description of Artificial Sequence: Construct  
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<220>

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<213> Artificial Sequence

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ccgt	at	gg	tt	tt	cc	cc	cc	cc	6660
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<212> DNA  
<213> Artificial Sequence

<220>

<220>  
<223> Description of Artificial Sequence: Construct  
E2CLBDAS

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 <211> 6639  
 <212> DNA  
 <213> Artificial Sequence

<220>

<220>  
 <223> Description of Artificial Sequence: Construct  
 E2CLBDBS

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<223> Description of Artificial Sequence: Construct  
VP16C7ER

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<211> 5  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: Recombinant  
molecule

<400> 19  
Thr Gly Glu Lys Pro  
1 5

<210> 20  
<211> 19  
<212> DNA  
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<220>  
<223> Description of Artificial Sequence: Recombinant  
molecule  
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<221> n= {N}x ; X= any number

<222> 10

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<210> 21  
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<212> DNA  
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<221> n= {N}x; X= any number

<222> 19

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molecule  
  
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molecule  
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<221> nnn= a mixture of all 64 existing triplets and its complem  
  
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<220>  
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<210> 27  
<211> 74  
<212> DNA  
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<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 27  
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<210> 28  
<211> 81  
<212> DNA  
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<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 28  
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aaaccgtata aatgcccaga g 81

<210> 29  
<211> 58  
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<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 29  
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<210> 30  
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<212> DNA  
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<210> 31  
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<220>  
<223> Description of Artificial Sequence: Recombinant molecule

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<210> 32  
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<223> Description of Artificial Sequence: Recombinant molecule

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<210> 33  
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<212> DNA  
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<400> 33  
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<210> 34  
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<212> DNA  
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<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 34  
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<210> 35  
<211> 42  
<212> DNA  
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<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 35  
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<210> 36  
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<220>

<223> Description of Artificial Sequence: Recombinant molecule

<400> 36  
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<210> 37  
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<212> DNA  
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23

<210> 38  
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23

<210> 39  
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<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 39  
cctactgccc gcactagtcc tgctggagac atgagagctg ccaacctt

48

<210> 40  
<211> 42  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 40  
cctaaacgta cggctagtgg gcgcatgtag gcgggtggcgc tc

42

<210> 41  
<211> 39  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 41  
cctaaacgta cggactgtgg cagggaaacc ctctgcctc

39

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<210> 42  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 42  
ccacttaaat gtgaaaagtctg tacggccggcc 30

<210> 43  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 43  
tatggggggc tcagcatcca acaaggcact 30

<210> 44  
<211> 48  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 44  
cctactacta gtgaccgaag aggagggaga atgttcaaac acaagcgc 48

<210> 45  
<211> 42  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 45  
cctactacta gtagtattca aggacataac gactataatgt gt 42

<210> 46  
<211> 39  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 46  
tatcatgtgc ggccgcttac ttagttaccc cggcagcat 39

<210> 47  
<211> 39  
<212> PRT  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Recombinant molecule

<400> 47

Pro Ala Asp Ala Leu Asp Asp Phe Asp Leu Asp Met Leu Pro Ala Asp  
1 5 10 15

Ala Leu Asp Asp Phe Asp Leu Asp Met Leu Pro Ala Asp Ala Leu Asp  
20 25 30

Asp Phe Asp Leu Asp Met Leu  
35

<210> 48

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Recombinant molecule

<400> 48

gatccaaagt cgcgtggcg cagcgccac gcgatcaaag a 41

<210> 49

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Recombinant molecule

<400> 49

gatccaaagt ccaggcgagc gcgtggcgag cagatcaaag a 41

<210> 50

<211> 47

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Recombinant molecule

<400> 50

gatccaaagt cgcgtggcg caggcgcgag cgtggcgga tcaaaga 47

<210> 51

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Recombinant molecule

<400> 51

gatccaaagt cgcgtggcg cagcgccac gcgatcaaag a 41

<210> 52

<211> 41

<212> DNA

<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant  
molecule

<400> 52  
gatccaaagt cgcggtggcg cactccggcc ccgatcaaag a 41

<210> 53  
<211> 41  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant  
molecule

<400> 53  
gatccaaagt cggggccgga gactccggcc ccgatcaaag a 41

<210> 54  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant  
molecule

<400> 54  
gccggagcca tggggccgga gcc 23

<210> 55  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant  
molecule

<400> 55  
cgctccctct caggcgcagg g 21

<210> 56  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant  
molecule

<400> 56  
ggcgccccact gtggggcggg c 21

<210> 57  
<211> 41  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant  
molecule

<400> 57  
gaggaggagg gccggccggg aagccgtgca ggaggagcgg c 41

<210> 58  
<211> 43  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 58  
gaggaggagg ggcgcgccag tcatttggtg cggcgctcc agc 43

<210> 59  
<211> 42  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 59  
gaggaggagt taattaaagt catttggtgc ggccgcctcca gc 42

<210> 60  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 60  
gaggaggagg gccggccggg gtggcggcca agactttgtt aagaagg 47

<210> 61  
<211> 50  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 61  
gaggaggagg gcccaggcgg ccgggtggcgg ccaagacttt gttaagaagg 50

<210> 62  
<211> 45  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 62  
gaggaggagg gcgcgcccg catgaacgtc ccagatctcc tcgag 45

<210> 63  
<211> 46  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant

molecule

<400> 63  
gaggaggagg gccggccgga ggcctgaatg tgtcatacag gagccc 46  
<210> 64  
<211> 49  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: Recombinant molecule  
  
<400> 64  
gaggaggagg gcccaggcgg ccaggcctga atgtgtata caggagccc 49  
<210> 65  
<211> 45  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: Recombinant molecule  
  
<400> 65  
gaggaggagg ggcgcgcctt ccgcacgtc ccagatctcc tcgag 45  
<210> 66  
<211> 35  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: Recombinant molecule  
  
<400> 66  
gtacagatgc tccatgcgtt tgttactcat gtgcc 35  
<210> 67  
<211> 35  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: Recombinant molecule  
  
<400> 67  
ggcacatgag taacaaacgc atggagcatc tgtac 35  
<210> 68  
<211> 31  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: Recombinant molecule  
  
<400> 68  
ccatggagca cccagtgaag ctactgttg c 31  
<210> 69  
<211> 31

<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant  
molecule  
<400> 69  
gcaaacagta gttcactgg gtgctccatg g

31

<210> 70  
<211> 624  
<212> DNA  
<213> Muridae

<220>  
<221> CDS  
<222> (1)...(624)  
<223> cDNA encoding secretion signal and  
murine endostain protein.

<400> 70  
atg gag aca gac aca ctc ctg cta tgg gta ctg ctg ctc tgg gtt cca 48  
Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro  
1 5 10 15  
ggt tcc act ggt gac gcg gcc cat act cat cag gac ttt cag cca gtg 96  
Gly Ser Thr Gly Asp Ala Ala His Thr His Gln Asp Phe Gln Pro Val  
20 25 30  
ctc cac ctg gtg gca ctg aac acc ccc ctg tct gga ggc atg cgt ggt 144  
Leu His Leu Val Ala Leu Asn Thr Pro Leu Ser Gly Gly Met Arg Gly  
35 40 45  
atc cgt gga gca gat ttc cag tgc ttc cag caa gcc cga gcc gtg ggg 192  
Ile Arg Gly Ala Asp Phe Gln Cys Phe Gln Gln Ala Arg Ala Val Gly  
50 55 60  
ctg tcg ggc acc ttc cgg gct ttc ctg tcc tct agg ctg cag gat ctc 240  
Leu Ser Gly Thr Phe Arg Ala Phe Leu Ser Ser Arg Leu Gln Asp Leu  
65 70 75 80  
tat agc atc gtg cgc cgt gct gac cgg ggg tct gtg ccc atc gtc aac 288  
Tyr Ser Ile Val Arg Arg Ala Asp Arg Gly Ser Val Pro Ile Val Asn  
85 90 95  
ctg aag gac gag gtg cta tct ccc agc tgg gac tcc ctg ttt tct ggc 336  
Leu Lys Asp Glu Val Leu Ser Pro Ser Trp Asp Ser Leu Phe Ser Gly  
100 105 110  
tcc cag ggt caa gtg caa ccc ggg gcc cgc atc ttt tct ttt gac ggc 384  
Ser Gln Gly Gln Val Gln Pro Gly Ala Arg Ile Phe Ser Phe Asp Gly  
115 120 125  
aga gat gtc ctg aga cac cca gcc tgg ccg cag aag agc gta tgg cac 432  
Arg Asp Val Leu Arg His Pro Ala Trp Pro Gln Lys Ser Val Trp His  
130 135 140  
ggc tcg gac ccc agt ggg cgg agg ctg atg gag agt tac tgt gag aca 480  
Gly Ser Asp Pro Ser Gly Arg Arg Leu Met Glu Ser Tyr Cys Glu Thr  
145 150 155 160  
tgg cga act gaa act act ggg gct aca ggt cag gcc tcc tcc ctg ctg 528  
Trp Arg Thr Glu Thr Thr Gly Ala Thr Gly Gln Ala Ser Ser Leu Leu  
165 170 175  
tca ggc agg ctc ctg gaa cag aaa gct gcg agc tgc cac aac agc tac 576

Ser Gly Arg Leu Leu Glu Gln Lys Ala Ala Ser Cys His Asn Ser Tyr  
180 185 190

atc gtc ctg tgc att gag aat agc ttc atg acc tct ttc tcc aaa tag 624  
Ile Val Leu Cys Ile Glu Asn Ser Phe Met Thr Ser Phe Ser Lys \*  
195 200 205

<210> 71  
<211> 207  
<212> PRT  
<213> Muridae

<400> 71  
Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro  
1 5 10 15  
Gly Ser Thr Gly Asp Ala Ala His Thr His Gln Asp Phe Gln Pro Val  
20 25 30  
Leu His Leu Val Ala Leu Asn Thr Pro Leu Ser Gly Gly Met Arg Gly  
35 40 45  
Ile Arg Gly Ala Asp Phe Gln Cys Phe Gln Gln Ala Arg Ala Val Gly  
50 55 60  
Leu Ser Gly Thr Phe Arg Ala Phe Leu Ser Ser Arg Leu Gln Asp Leu  
65 70 75 80  
Tyr Ser Ile Val Arg Arg Ala Asp Arg Gly Ser Val Pro Ile Val Asn  
85 90 95  
Leu Lys Asp Glu Val Leu Ser Pro Ser Trp Asp Ser Leu Phe Ser Gly  
100 105 110  
Ser Gln Gly Gln Val Gln Pro Gly Ala Arg Ile Phe Ser Phe Asp Gly  
115 120 125  
Arg Asp Val Leu Arg His Pro Ala Trp Pro Gln Lys Ser Val Trp His  
130 135 140  
Gly Ser Asp Pro Ser Gly Arg Arg Leu Met Glu Ser Tyr Cys Glu Thr  
145 150 155 160  
Trp Arg Thr Glu Thr Thr Gly Ala Thr Gly Gln Ala Ser Ser Leu Leu  
165 170 175  
Ser Gly Arg Leu Leu Glu Gln Lys Ala Ala Ser Cys His Asn Ser Tyr  
180 185 190  
Ile Val Leu Cys Ile Glu Asn Ser Phe Met Thr Ser Phe Ser Lys  
195 200 205

<210> 72  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin  $\beta 3$  (B3B) target sequence

<400> 72  
gcctgagagg gagcggtg 18

<210> 73  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Integrin  $\beta 3$  (B3C) target sequence

<400> 73  
ggaggggacg cggtgggt 18

<210> 74  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: ErbB-2 (E2B2) target sequence

<400> 74  
tggtgagaac ggctgcaggc 20

<210> 75  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: ErbB-2 (E2C) target sequence

<400> 75  
ggggccggag ccgcagtg 18

<210> 76  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: ErbB-2 (E2D) target sequence

<400> 76  
gcagttggag gggggcag 18

<210> 77  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 77  
Gln Ser Ser Asn Leu Val Arg  
1 5

<210> 78  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 78  
Asp Pro Gly Asn Leu Val Arg  
1 5

<210> 79  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 79  
Arg Ser Asp Asn Leu Val Arg

<210> 80  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 80  
Thr Ser Gly Asn Leu Val Arg  
1 5

<210> 81  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 81  
Gln Ser Gly Asp Leu Arg Arg  
1 5

<210> 82  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 82  
Asp Cys Arg Asp Leu Ala Arg  
1 5

<210> 83  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 83  
Arg Ser Asp Asp Leu Val Lys  
1 5

<210> 84  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 84  
Thr Ser Gly Glu Leu Val Arg  
1 5

<210> 85  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 85  
Gln Arg Ala His Leu Glu Arg  
1 5

<210> 86  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 86  
Asp Pro Gly His Leu Val Arg  
1 5

<210> 87  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 87  
Arg Ser Asp Lys Leu Val Arg  
1 5

<210> 88  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 88  
Thr Ser Gly His Leu Val Arg  
1 5

<210> 89  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 89  
Gln Ser Ser Ser Leu Val Arg  
1 5

<210> 90  
<211> 7

<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 90  
Asp Pro Gly Ala Leu Val Arg  
1 5

<210> 91  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 91  
Arg Ser Asp Glu Leu Val Arg  
1 5

<210> 92  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Recombinant molecule

<400> 92  
Thr Ser Gly Ser Leu Val Arg  
1 5